

We claim:

1. A coating composition for a reinforcing article comprising a superabsorbent water-soluble polymer precursor in aqueous solution.
- 5 2. The coating composition of claim 1, wherein the superabsorbent water-soluble polymer precursor is a polyacrylate.
3. The coating composition of claim 1, further comprising a viscosity-modifying agent.
4. The coating composition of claim 3, wherein the viscosity-modifying agent is an aqueous solution of a polymeric material selected from the group consisting of polyacrylamides.
- 10 5. The coating composition of claim 1, further comprising a lubricant.
6. The coating composition of claim 1, further comprising a binder.
7. The coating composition of claim 6, wherein the binder is a polyurethane.
8. A coating formed on the surfaces of a reinforcing article, comprising a superabsorbent water-soluble polymer.
- 15 9. The coating of claim 8, wherein the superabsorbent water-soluble polymer, after curing, absorbs up to about 400 times its initial dry weight in water when immersed in an aqueous environment, and desorbs water when the coating is dried.
10. The coating of claim 8, further comprising a viscosity-modifying agent.
11. The coating of claim 8, further comprising a lubricant.
- 20 12. The coating of claim 11, wherein the article comprising a reinforcing fiber material is a fiber strand selected from the group consisting of glass, carbon, one or more polymers, natural fibers and mixtures.
13. The coating of claim 12, having a swell rate of from about 300 % to about 2000 % weight, based on the total weight of coated strand, in the first minute.

14. A reinforcing article having a coating comprising:

a superabsorbent polymer;

a viscosity modifying agent; and

a binder.

5 15. A method of forming a superabsorbent, water-resistant coating on the surface of a reinforced fiber-containing article comprising:

a) preparing a liquid coating composition comprising a superabsorbent water-soluble polymer that absorbs and desorbs water when the coating is exposed to an aqueous or moisture-containing environment and a viscosity modifying agent;

10 b) applying the liquid coating composition to the surface of the article to form a liquid coating; and

c) drying and curing the liquid coating to form a water-absorbing, water-resistant coating layer on the surface of the article.

15 16. The method of claim 15, wherein the step of applying the liquid coating composition to the surface of the article comprises contacting the liquid coating composition with the surface of the article to form a layer of liquid coating over the entire surface of the article.

17. An aqueous coating composition comprising:

a superabsorbent polymer precursor;

a viscosity-modifying agent; and

20 a binder.

18. The aqueous coating composition of claim 17, wherein the superabsorbent polymer precursor is selected from the group consisting of anionic alkali salts and alkali metal salts of said superabsorbent polymer.

19. The aqueous coating composition of claim 17, wherein the superabsorbent polymer precursor is a polyacrylate.
20. The aqueous coating composition of claim 17, wherein the viscosity-modifying agent is selected from the group consisting of alkyl celluloses, acrylamide polymers and mixtures thereof.
21. The aqueous coating composition of claim 20, wherein the viscosity-modifying agent is a polyacrylamide.
22. The aqueous coating composition of claim 17, wherein the binder is selected from the group consisting of polyesters, polyurethanes, epoxies, latex and mixtures thereof.
23. The aqueous coating composition of claim 22, wherein the binder is a film-forming polyurethane.